

WHAT IS CLAIMED IS:

1. A driving method for a plasma display panel (PDP), said PDP comprising a plurality of first common electrodes, a plurality of second common electrodes, a plurality of scanning electrodes, a plurality of data electrodes, and a plurality of pixel units, wherein the pixel units belonging to a row of odd number are odd pixel units and are defined by said second common electrodes and said scanning electrodes, the pixel units belonging to a row of even number are even pixel units and are defined by said first common electrodes and said scanning electrodes, and image data of said pixel units is inputted by said data electrodes, said driving method comprising:

(a) processing a reset operation, providing an odd-field address period and sequentially making each of voltage differences between said second common electrodes and the corresponding scanning electrodes larger than a discharge threshold voltage, and selectively inputting the image data to said data electrodes;

(b) providing an odd-field sustaining-discharge period, and inputting a first sustaining discharge pulse and a second sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and said second common electrodes;

(c) processing the reset operation, providing an even-field address period and sequentially making each of voltage differences between said first common electrodes and said scanning electrodes larger than the discharge threshold voltage, and selectively inputting the image data to said data electrodes; and

(d) providing an even-field sustaining-discharge period and inputting a third sustaining discharge pulse and a fourth sustaining discharge pulse, which are out of phase to each other, respectively to said scanning electrodes and said first common electrodes.

5 2. The driving method according to claim 1, wherein said step (a) further comprising:

(a1) making each of the voltage differences between said second common electrodes and said corresponding scanning electrodes larger than a reset threshold voltage; and

10 (a2) sustaining a first positive voltage to each of said second common electrodes, and sequentially applying a negative voltage pulse respectively to each of said scanning electrodes, and selectively applying a positive voltage pulse to each of said data electrodes according to the image data to be displayed.

15 3. The driving method according to claim 1, wherein said step (b) further comprising:

sustaining a second positive voltage to each of said data electrodes, applying a first alternating-current voltage, a second alternating-current voltage, and a third alternating-current voltage respectively to each of said
20 scanning electrodes, each of said second common electrodes, and each of said first common electrodes, wherein said first alternating-current voltage is out of phase to said second alternating-current voltage, and is in phase to said third alternating-current voltage.

4. The driving method according to claim 1, wherein said step (c) further comprising:

(c1) making each of the voltage differences between said first common electrodes and said corresponding scanning electrodes larger than a reset
5 threshold voltage; and

(c2) sustaining a first positive voltage to each of said first common electrodes, and sequentially applying a negative voltage pulse respectively to each of said scanning electrodes, and selectively applying a positive voltage pulse to each of said data electrodes according to the image data to be
10 displayed.

5. The driving method according to claim 1, wherein said step (d) further comprising:

sustaining a second positive voltage to each of said data electrodes, applying a fourth alternating-current voltage, a fifth alternating-current voltage,
15 and a sixth alternating-current voltage respectively to each of said scanning electrodes, each of said second common electrodes, and each of said first common electrodes, wherein said fourth alternating-current voltage is out of phase to said sixth alternating-current voltage, and is in phase to the fifth alternating-current voltage.

20 6. The driving method according to claim 1, after said step (b) and before said step (c) further comprising:

providing an odd-field erase period for sustaining a third positive voltage to each of said data electrodes, and applying an erase pulse

respectively to each of said scanning electrodes and said first common electrodes.

7. The driving method according to claim 1, after said step (d) further comprising:

5 providing an even-field erase period for sustaining a third positive voltage to each of said data electrodes, and applying an erase pulse respectively to each of said scanning electrodes and said second common electrodes.

8. The driving method according to claim 1, wherein said pixel units are
10 disposed in delta arrangement, and said odd pixel units and said even pixel units are arranged alternately.

9. The driving method according to claim 8, wherein each of said odd pixel units and the adjacent even pixel units correspond to a same data electrode.

15 10. A driving method for a plasma display panel (PDP), said PDP having a plurality of first common electrodes, a plurality of second common electrodes, a plurality of scanning electrodes, a plurality of data electrodes, and a plurality of pixel units disposed in delta arrangement, wherein the pixel units belonging to a row of odd number are odd pixel units and are defined by
20 said second common electrodes and said scanning electrodes, the pixel units belonging to a row of even number are even pixel units and are defined by said first common electrodes and said scanning electrodes, and image data of said pixel units is inputted by said data electrodes, said method comprising:

(a) making each of voltage differences between said second common electrodes and the corresponding scanning electrodes larger than a discharge threshold voltage;

5 (b) sustaining a first positive voltage to each of the second common electrodes, sequentially providing a first pulse of a negative voltage respectively to each of said scanning electrodes, and selectively applying a second pulse of a positive voltage to each of said data electrodes according to the image data to be displayed;

10 (c) sustaining a second positive voltage to each of said address electrode, applying a first alternating-current voltage, a second alternating-current voltage, and a third alternating-current voltage respectively to each of said scanning electrodes, each of said second common electrodes, and each of said first common electrodes, wherein said first alternating-current voltage is out of phase to said second alternating-current voltage, and is in phase to
15 said third alternating-current voltage;

(d) making each of the voltage differences between said first common electrodes and the corresponding scanning electrodes larger than the reset threshold voltage;

20 (e) sustaining a third positive voltage to each of said first common electrodes, and sequentially applying a third pulse of a negative voltage respectively to each of said scanning electrodes, and selectively applying a fourth pulse of positive voltage to said data electrodes according to the image data to be displayed;

(f) sustaining a fourth positive voltage to each of said data electrodes, applying a fourth alternating-current voltage, a fifth alternating-current voltage, and a sixth alternating-current voltage respectively to each of said scanning electrodes, each of said second common electrodes, and each of said first
5 common electrodes, wherein said fourth alternating-current voltage is out of phase to said sixth alternating-current voltage, and is in phase to the fifth alternating-current voltage.

11. The driving method according to claim 10, after said step (c) and before said step (d) further comprising:

10 providing an odd-field erase period for sustaining a fifth positive voltage to each of said data electrodes, and applying an erase pulse respectively to each of said scanning electrodes and said first common electrodes.

12. The driving method according to claim 10, after said step (f) further comprising:

15 providing an even odd-field erase period for sustaining a fifth positive voltage to each of said data electrodes, and applying an erase pulse respectively to each of said scanning electrodes and said second common electrodes.

13. The driving method according to claim 10, wherein each of said odd
20 pixel units and the adjacent even pixel units correspond to a same data electrode, and said odd pixel units and said even pixel units are arranged alternately.

* * * * *